Arizona Department of Transportation

STATE ENGINEER'S OFFICE

MEMORANDUM

To: ITD Employees	**Date:** June 23, 2005
From: Sam Maroufkhani, Acting State Engineer	**Subject:** CADD Electronic Files Archiving Process

Effective July 1, 2005, all ADOT Project Managers will implement the ADOT CADD Files Archiving Process.

The attached document titled “Computer-Aided Design and Drafting (CADD) Standards For All Project Related Deliverables” outlines what files are to be provided and how the files are to be submitted for archiving for each Design Technical Unit. At this time the ADOT Archiving Team is focusing upon the method for archiving the “As-Bid” electronic files. After this process is implemented, the Team will focus on the “As-Built” process. The CADD Archiving Process will be the standard method for both ADOT staff-designed projects as well as consultant-designed projects.

The primary Project Manager is central to a project. The Project Manager role is crucial to ensuring that all Design Technical Units’ Project data is archived at the same time. (See attached ADOT CADD Files Archiving Process Flow Chart.)

A new ITD policy regarding the ADOT CADD Files Archiving Process is in process. Upon completion of the policy, you will be advised when the policy is available on the intranet website.

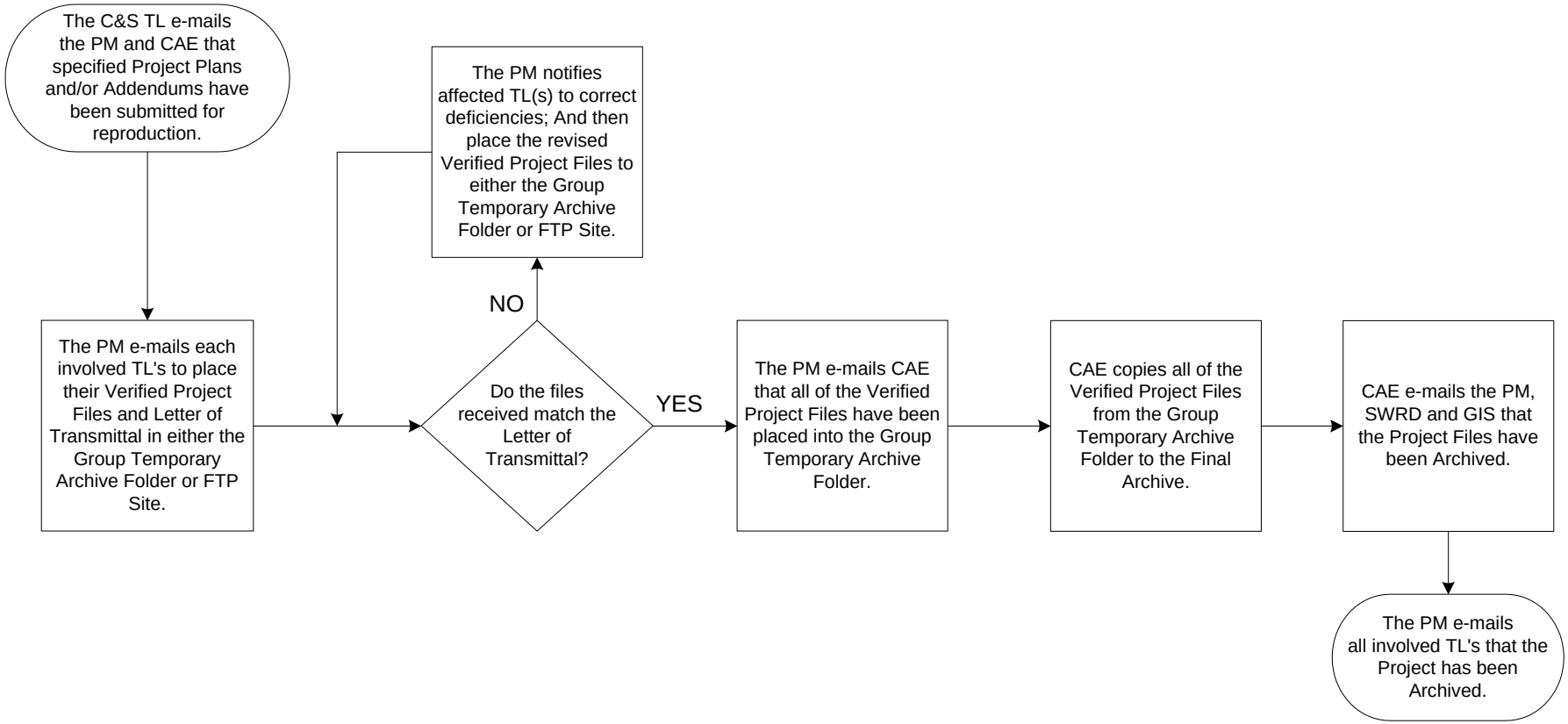
Your cooperation is appreciated to implement this process that will assure ADOT has ready access to all Electronic CADD files they have commissioned.

ADOT CADD Files Archiving Process*

Task Level Map

DEFINITIONS:
ADOT Standards - ADOT Design Software (MicroStation, et al) Resource files, Design Criteria and Drafting Guidelines.
C&S - Contracts & Specification Services.
CAE - The Computer Aided Engineering Archive Liaison.
Final Archive - The Final Archive Folder is on \\e980ts04\Archive.
FTP Site** - File Transfer Protocol (FTP). An Electronic site for Design Consultants to use to transfer Electronic Files through ADOT's firewall.
PM - The ADOT Project Manager responsible for all project related activities.
SWRD - Statewide Record Drawings Liaison.
Temporary Archive Folder ** - An Electronic site for ADOT Design Groups Electronic Files (\\e980ts04\MSV7).
TL - The Technical Leader of individual Design Units (ADOT or Consultant), responsible to assure that all CADD Files have been completed in ADOT Standard File Format.
Verified - The PM confirms with the TL that all related files & file-formats have been received, and meet ADOT Standard file formats. It will not be necessary for the PM to check the information confirmed within the files.

** If these Electronic Folders are not used, the Design Units (ADOT or Consultant) have the option to submit two (2) copies of their Electronic Files on Compact Discs to be delivered to the PM.



* Archive Process Excludes Materials Group and Engineering Surveys

Computer-Aided Design and Drafting (CADD) Standards for all Project related Deliverables.

ADOT shall retain all rights and ownership of all Electronic Files and Hardcopy Deliverables throughout the Design Phases.

General Specifications:

All drawings to be archived shall conform to ADOT drafting and CADD standards, including CADD file naming convention. The current ADOT approved version of Bentley's MicroStation software will be used. All graphic files shall be provided in MicroStation native design file format (.dgn), and contain data in vector format only. Digital Terrain Model (.dtm) files shall be produced with Bentley's InRoads/Site/Survey Select Cad compatible file formats. Raster data shall not be accepted unless otherwise stated by ADOT. Use of non-MicroStation vector format and subsequent translation of graphic files to the .dgn format shall not be acceptable. No zipped files shall be accepted. Reference files are not to be copied into the plan sheets master file. All electronic "design sheets" will be delivered in a typical "Plan View" (dependant upon sheet contents) in view 1. ADOT cells are not to be modified unless approved by ADOT.

All final Consultant project Electronic CADD data files may be delivered through a File Transfer Protocol (FTP) Site. Alternatively, two (2) copies of the electronic files shall be submitted on CD-Rom (multiple CD's shall be allowed). All final project documentation, electronic files (.dgn, ASCII, .alg, .dtm, project wide reference files, etc.) and hard copy, shall be packaged separately, suitably labeled and delivered to the assigned ADOT primary Project Manager, and/or to the Technical Leader as identified below.

All deliverables shall contain an electronic Index of files and a letter of transmittal to the designated areas and all CD's must be labeled with the information stated below:

- **Identification Label For CD and Case:**
  Prepared By:
  Federal Project Number:
  Route:
  Milepost (Beginning/Ending):
  Prefix (Rt, Co, MP) and TRACS Number:
  Project Name:
  Type of Files:
  Creation Date:
  Disc (#) of (total #)

In addition to the requirements stated above in the General Specifications, all designers of ADOT projects shall provide the following information requested by the individual areas. If unclear about items needed for your project, please contact the Project Manger.

Bridge:

Identification Label

1. Structure Number (4 digit number)
2. Structure Name (Wildcat Wash Bridge)
3. Type of work category:
    a) Major Structure – New Bridge
    b) Bridge Replacement
    c) Minor Structure
    d) Deck Rehabilitation
    e) Hinge, Deck or Joint Repair
    f) Barrier Replacement
    g) Bridge Widening
    h) Scour Protection
    i) Seismic Retrofit

Materials:

(Geotech)

In addition to the CADD requirements stated in the General Specifications, all Consultants of ADOT Geotech projects shall provide the following information to the Project Engineer for ADOT Geotech Section:

1. One (1) Electronic Copy of the final Geotech Design sheets submitted on CD-Rom.
2. One (1) half-size (11”x17”) print of the Geotech sealed and signed final design sheets.

Roadway Engineering:

See General Specifications.

Right of Way:

All R/W plans are to conform to current R/W Plans Standards and Manual.
Final Task Submittal FINAL R/W PLANS
When all comments have been addressed, the designers of ADOT projects shall submit the following:

1. Beginning and Ending Mileposts in tenths of a mile
2. Revised Calculation Book sheets and Point ID sheets, if necessary.
3. An ASCII coordinate electronic file in the following format: Point Number, Northing, Easting, and Description using commas as delimiters. The designers of ADOT projects shall ensure that this file is free of extraneous text such as page numbers, headers, batch commands, and the like. This file shall be such that it can be imported into a COGO program without reformatting by ADOT Right of Way Plans Section. Only numeric numbers shall be accepted.
4. One (1) half-size print of the Final Right of Way Plans set.
5. Full-size set of Sealed and Signed Mylar's trimmed to 22" x 34"

Traffic Engineering:

Upon Final Design Approval for any and all work that involves Traffic Engineering/Design, the Traffic Engineering Group requires that the following CADD related deliverables be submitted to the Primary Project Manager as indicated in the General Specifications. In addition, a copy of the Letter of Transmittal indicating all Traffic related deliverables have been submitted to ADOT shall be forwarded to the Traffic Engineering Project Manager for approval.

1. All SignCad files shall be submitted in ADOT's current version of SignCad (.SGN).
2. All Design CADD files associated with Traffic Design, including Traffic Signals, Signing, Pavement Marking, Traffic Control, Pre-Design, HES Projects, and Permit Designs, shall be submitted in ADOT's current version of MicroStation 2D format (.DGN)(2D).

Engineering Surveys:

(Location Surveys and Photogrammetry)

In addition to the CADD requirements stated in the General Specifications, all designers of ADOT projects shall provide the following information to the Engineering Survey Section:

1. Ground Adjustment Factor (G.A.F.):
2. Contour Interval (C.I.):
3. Project Scale:
4. Horizontal and Vertical Datums:
5. Arizona Zone:
6. Hard copy of reports including any plots

Based on the Scope of Work, select the items to be delivered:

1. Hard Copies shall consist of the following:
    a) Field notes
    b) Sketches
    c) Transit and Level books
    d) Plots
    e) Reports

2. (.dgn) file containing graphical representation of the project (i.e. Planimetrics and contours).

3. (.3d) file containing graphical representation (i.e. breaklines and random points) to produce the DTM.

4. (.dtm) containing Engineering Surveys approved features that make up a correct surface representation.

5. (.alg) file containing the project alignments. (.rpt) file including curve data from the alignment.

6. ASCII (.csv) files shall contain the following:
    a) File Header Information:
        i. Project GAF
        ii. Project Datums
        iii. Arizona Zone
        iv. Basis of Alignment
        v. Basis of Stationing
        vi. Basis of Horizontal Control
        vii. Basis of Elevation
        viii. Basis of Bearing
    a) All Project Control
    b) Section Corners
    c) R/W Monumentation
    d) Structures
    e) Edge of pavement
    f) Centerline and driving stripes
    g) Other features as requested

Note: Two (.csv) files shall be submitted, one containing the RAW survey data and another containing the Edited survey data.

1. All Film Negatives used to map a project
2. Scanned Images and/or Diapositives used to map project
3. Aerotriangulation files used to control photography
4. Orthophotos produced for the mapping project
5. Record of Survey: When requested, Record of Survey shall be in electronic (.dgn / .pdf) format with a stamped original.
6. Pictures: Upon Request pictures shall be taken for all structures including end of pipes, and headwalls, caps, and any un-natural terrain feature in a (.jpg or .bmp) file format (check scope of work).

If unclear about items needed for your project, please contact the Engineering Survey Section.

ADOT PROJECT MANAGER:

All survey and photogrammetry projects shall be submitted to the Engineering Survey Section through the ADOT and Consultant Project Manager, for verification of deliverables and archiving purposes. A notification of findings shall be sent to the Project Manager after completion of project review.

ADOT FILE NAMING CONVENTIONS

ROADWAY DESIGN FILE NAMING CONVENTIONS

Eight Digits
Ex. h1234p11.dgn
(All lower Case)

Where:'h' refers to highway (or roadway)
'1234' refers to project tracs no.
'p11' refers to three character naming convention (See below)
'dgn' is the file extension

Note: It is recommended that all file names should be eight characters long and in lower case. All 2d Microstation files should have extension of '.dgn' and all 3d files should have extension of '.3d'except Inroads files.

SHEET TYPE	NAMING CONVENTION (Last three characters)
Microstation Plan Sheets	
Border Sheet	bdr
Channel Plan or Profile	c01 - c99
Detail Sheet	dta, dtb etc.
Design Sheet	ds1 - ds9
Detour Sheet	dr1 - dr9
Drainage Sheet	d01 - d99
Face Sheet	fs
Geometry Sheet	g01 - g99
Plan Sheet	p01 - p99
Profile Sheet (Vertical Alignment)	v01 - v99
Ramp Sheet	r01 - r99
Retaining Wall Sheet	w01 - w99
Sanitary Sewer Sheet	ssa, ssb etc.
Sheet 1A	1a
Sheet 1B	1b
Sheet 1C	1c
Sheet 1D	1d
Staking Diagram Sheet	sta, stb etc.
Storm Drain Sheet	sda, sdb etc.
(including Plan and/or Profile)	
Summary Sheets	
Barrier Summary Sheets	sb1 - sb9
Pipe Summary Sheets	sp1 - sp9
Culvert Summary Sheets	sc1 - sc9
Super Elevation Sheet	se1 - se9

SHEET TYPE	NAMING CONVENTION

	(Last three digits)
Microstation Plan Sheets (contd.)	
Turn-Out Sheet	**t01 - t99**
Utility Sheet	**u01 - u99**
Water Line Sheet	**wl1 - wl9**

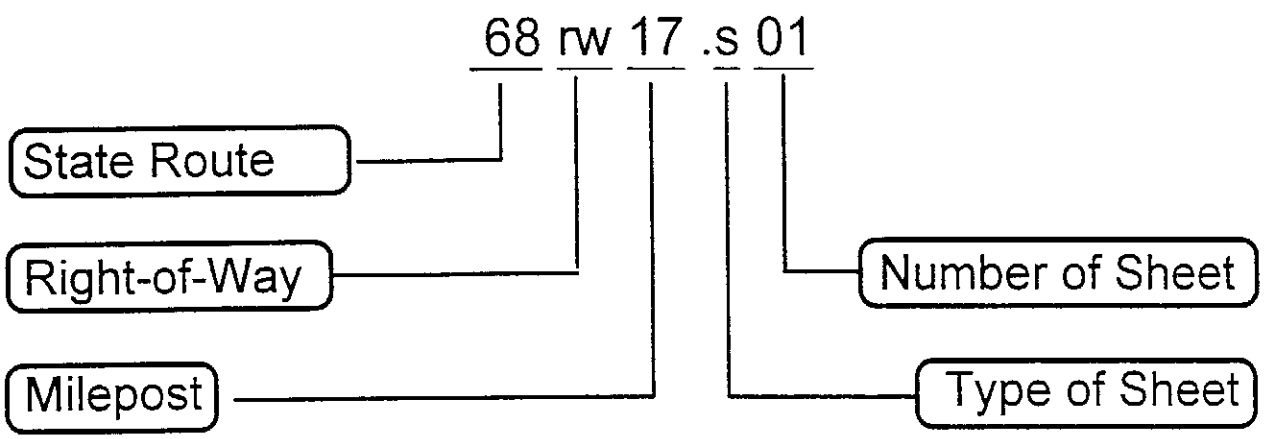
Miscellaneous Files (mentioned in CAD workflow documentation)

Design Base File (Roadway geometry)	**h1234des.dgn**
Master Layout File	**h1234mas.dgn**
Topography File	**h1234tpo.dgn**
Cross Section File	**h1234xs.dgn**

Inroads Files

Project File (ASCII file to store other files info.)	**h1234.rwk**
Geometry Project File (Alignment File)	**h1234.alg**
Surface Files :	
(Note : Three characters can be added to differentiate surface names.)	
New Surface	**h1234new.dtm**
Existing Surface	**h1234ext.dtm**
Template Libraries	**h1234.tml**
Roadway Libraries	**h1234.rwl**

FILE NAMING CONVENTION FOR RIGHT-OF-WAY



TYPE OF SHEET

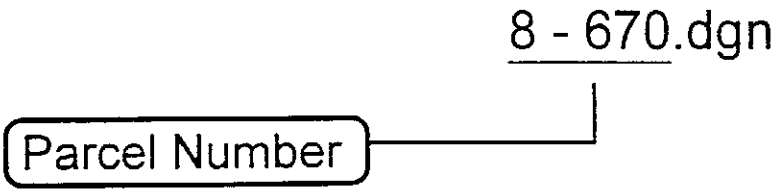
a01 through a99:	Cronaflex Sheets (68rw17.a01)
r01 through r99:	Raster files used to create Cronaflex sheets (single attachment; final to be an Intergraph "*.cot" file [68rw17.r01])
o01 through o99:	Ownership Record Sheets (68rw17.o01)
v01 through v99:	Vicinity Map (68rw17.v01)
s01 through s99:	Plansheet (68rw17.s01)
ndx:	Index to Existing R/W (68rw17.ndx)

BASEMAP FILES

vln:	Line work for vicinity maps (68rw17.vln)
aln:	Centerline related data for plan sheets (68rw17.aln)
dgn:	Section and property lines for plan sheets (68rw17.dgn)
xtp:	Existing topography for plan sheets (68rw17.xtp)
ntp:	New construction features for plan sheets (68rw17.ntp)
bdr:	Border (68rw17.bdr)
res:	Resolution of Establishment (68rw17.res)
pnt:	Point File (68rw17.pnt)

TYPE OF FILES

*.dgn:	MicroStation Graphics File (68rw17.dgn)
*.asc:	Point file in ASCII Format (68rw17.asc)
*.dat:	Point file in ASCII Format (68rw17.dat)
*.rpt:	InRoads/COGOClassic Report Files (68rw17.rpt)
*.alg:	InRoads/COGOClassic Geometry Files (68rw17.alg)



R/W Project CADD File Names

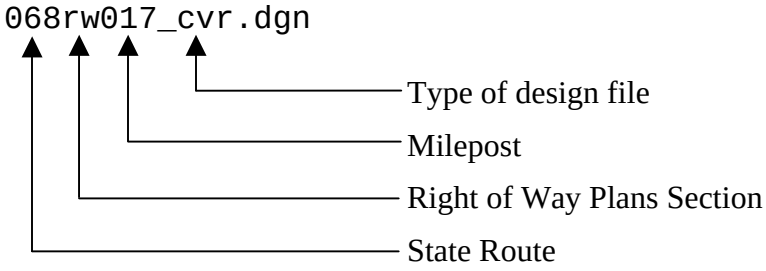
R/W Project 068 MO 017 H2191 01R (State Route 68 at milepost 17) will be used as the example project for the required file names.

Plan sheet type	Previous file name	New file name
Cover Sheet	068rw017.cover	068rw017_cvr.dgn
Standard Abbreviations	068rw017.standards	068rw017_std.dgn
Ownership Record sheet	068rw017.ownership1	068rw017_ors01.dgn
	068rw017.ownership2	068rw017_ors02.dgn
Vicinity Map	068rw017.vicinity1	068rw017_vm01.dgn
	068rw017.vicinity2	068rw017_vm02.dgn
Plan sheet	068rw017.plan01	068rw017_p01.dgn
	068rw017.plan02	068rw017_p02.dgn
Linework files		
Vicinity Linework	068rw017.vicinitylinework	068rw017_vln.dgn
Plan Linework	068rw017.planlinework	068rw017_pln.dgn
Centerlines	068rw017.alignment	068rw017_aln.dgn
New R/W, TCE, etc.	068rw017.newacq	068rw017_acq.dgn
Plansheet Border	068rw017.border	068rw017_bdr.dgn
Miscellaneous		
Index to Existing R/W (If separate sheet is approved)	068rw017.existingindex	068rw017_idx.dgn
Parcel Exhibit	8-670.parcelexhibit	8-670_exh.dgn
Parcel Insert Sheet	068rw017.plan??	068rw017_par01.dgn
Point ID Sheet	068rw017.pointid01	068rw017_ptid01.dgn
Resolution of Establishment	068rw017.resolution	068rw017_res.dgn
Cogo		
Point file (ASCII)	068rw017.asc	068rw017.asc

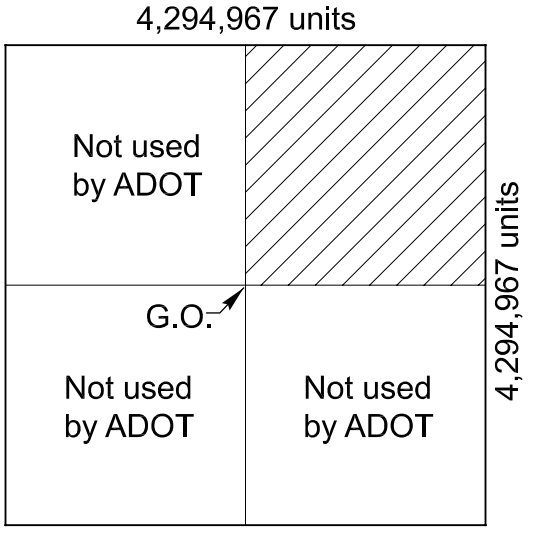
Plan sheet type	Previous file name	New file name
Results of Survey, Monumentation Staking Plan & Monumentation Survey		
Survey Linework	068rw017.surveylinework	068rw017_sln.dgn
Plan sheet	068rw017.survey01	068rw017_rs01.dgn
	068rw017.survey02	068rw017_rs02.dgn
	… Etc.	
Monumentation Staking	(Use next available #)	
Plan & Monumentation	068rw017.survey03	068rw017_rs03.dgn
Survey	068rw017.survey04	068rw017_rs04.dgn
	… Etc.	
BIA Application Sheet	068rw017.bia	068rw017_bia.dgn
Construction & topo features		
Existing topography	068rw017.existingtopo	068rw017_topo.dgn
New Construction	068rw017.newconstr	068rw017_cst.dgn
New Drainage	068rw017.newdrainage	068rw017_drn.dgn

Note: The Monumentation Staking Plan will be transformed into the Monumentation Survey sheets at the completion of the final survey.

File Name Structure



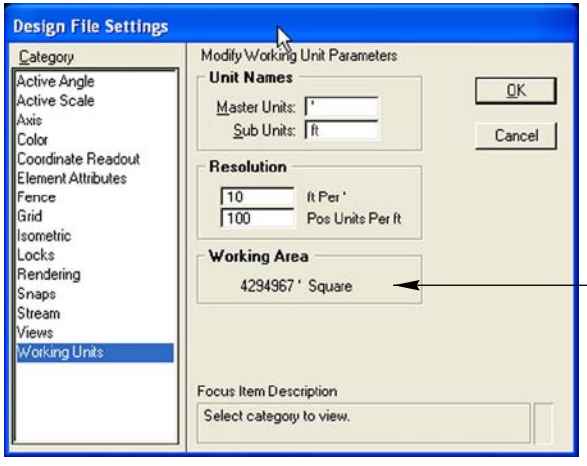
DESIGN PLANE, WORKING UNITS AND GLOBAL ORIGIN
for MicroStation



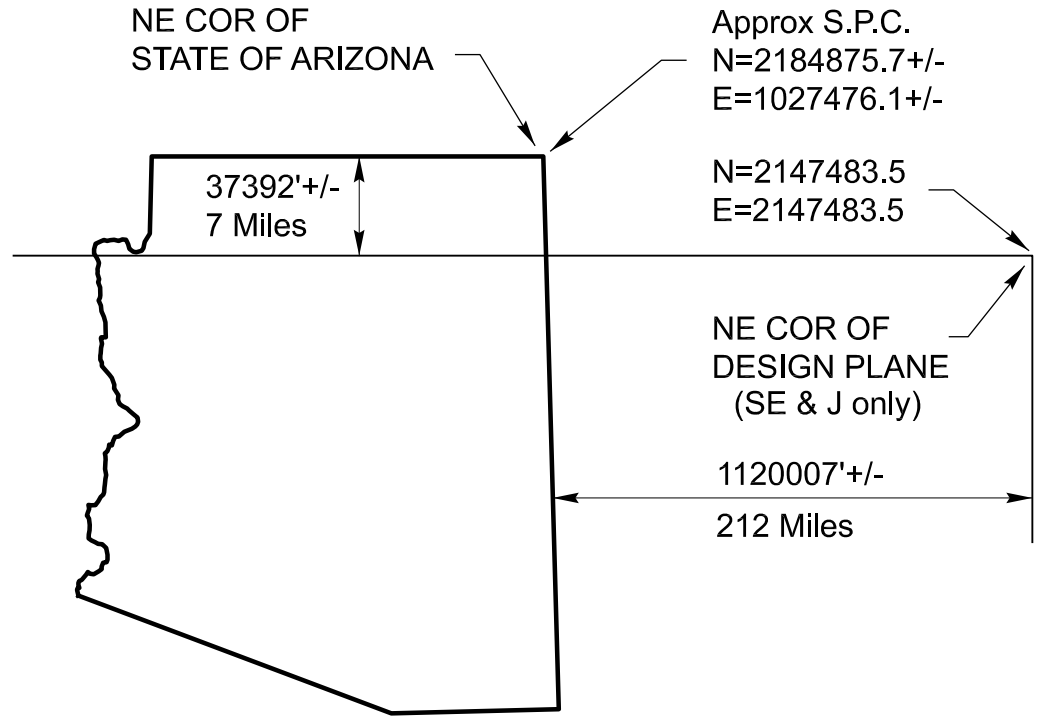
NOTE:
ADOT only uses the NE quad.
of the design plane

GO=2147483.6480,2147483.6480
which is the center of the
design plane.

When using State Plane Coordinates
portions of the State fall outside
of the design plane. (SE & J only)



Working Units

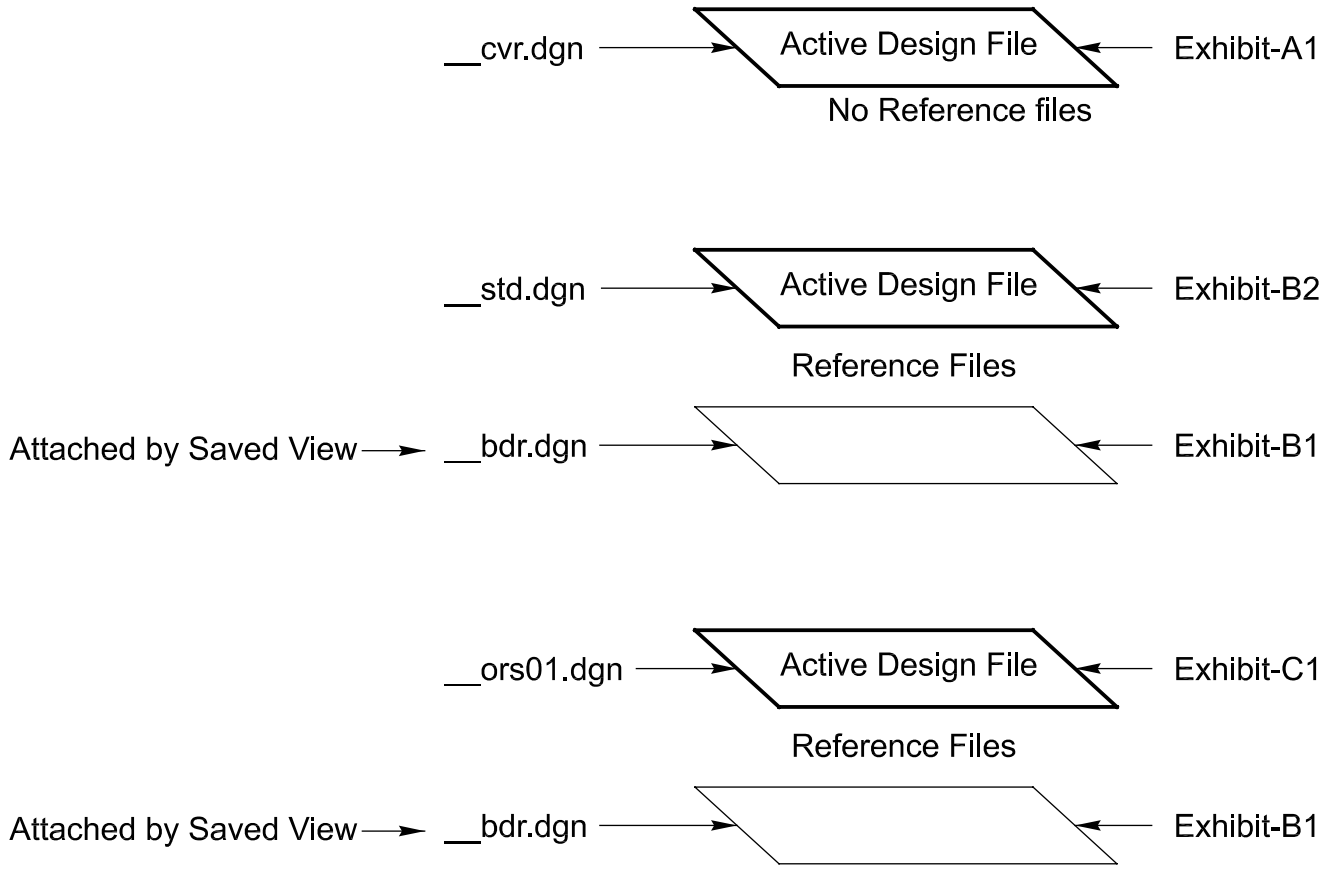


TYPICAL ADOT PROJECT & REFERENCING
for MicroStation

Order of Sheets of a Typical Plan Set

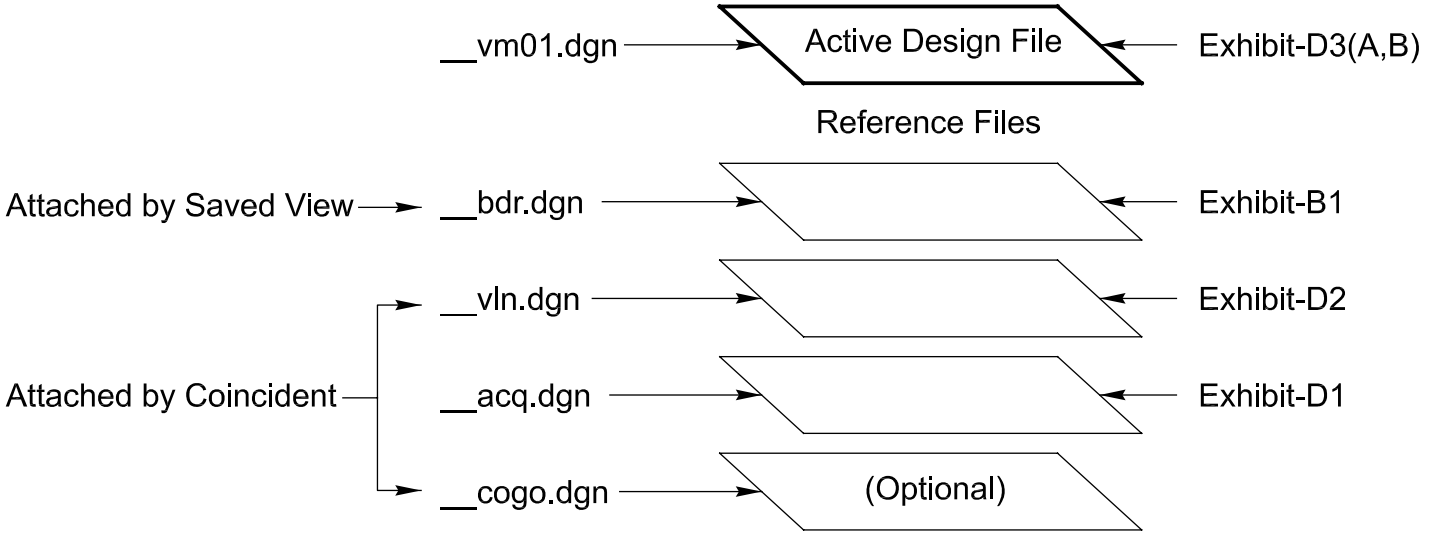
Cover Sheet
Standard Abbreviations & Symbols
Ownership Record Sheet
Vicinity Map Sheet
Index to Existing R/W Sheet
(If not shown on Vicinity Map)
Plan Sheet
Parcel Insert Sheet
(If not shown on Plan Sheet)
Detail Sheet
(If required)
BIA Application Sheet
(If required)
Results of Survey Sheet
(If required)

REFERENCING SCHEME



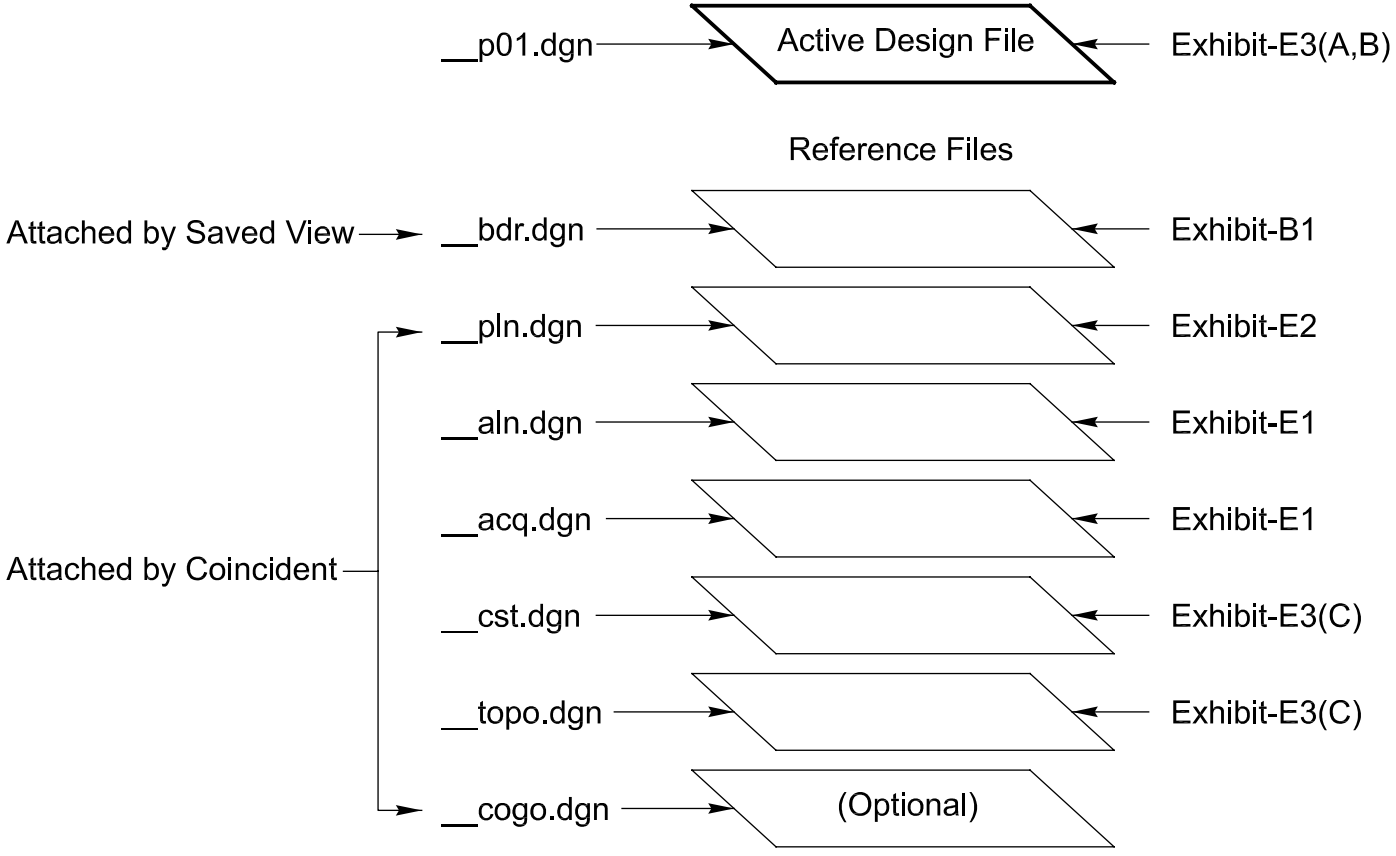
TYPICAL ADOT PROJECT & REFERENCING
for MicroStation

REFERENCING SCHEME



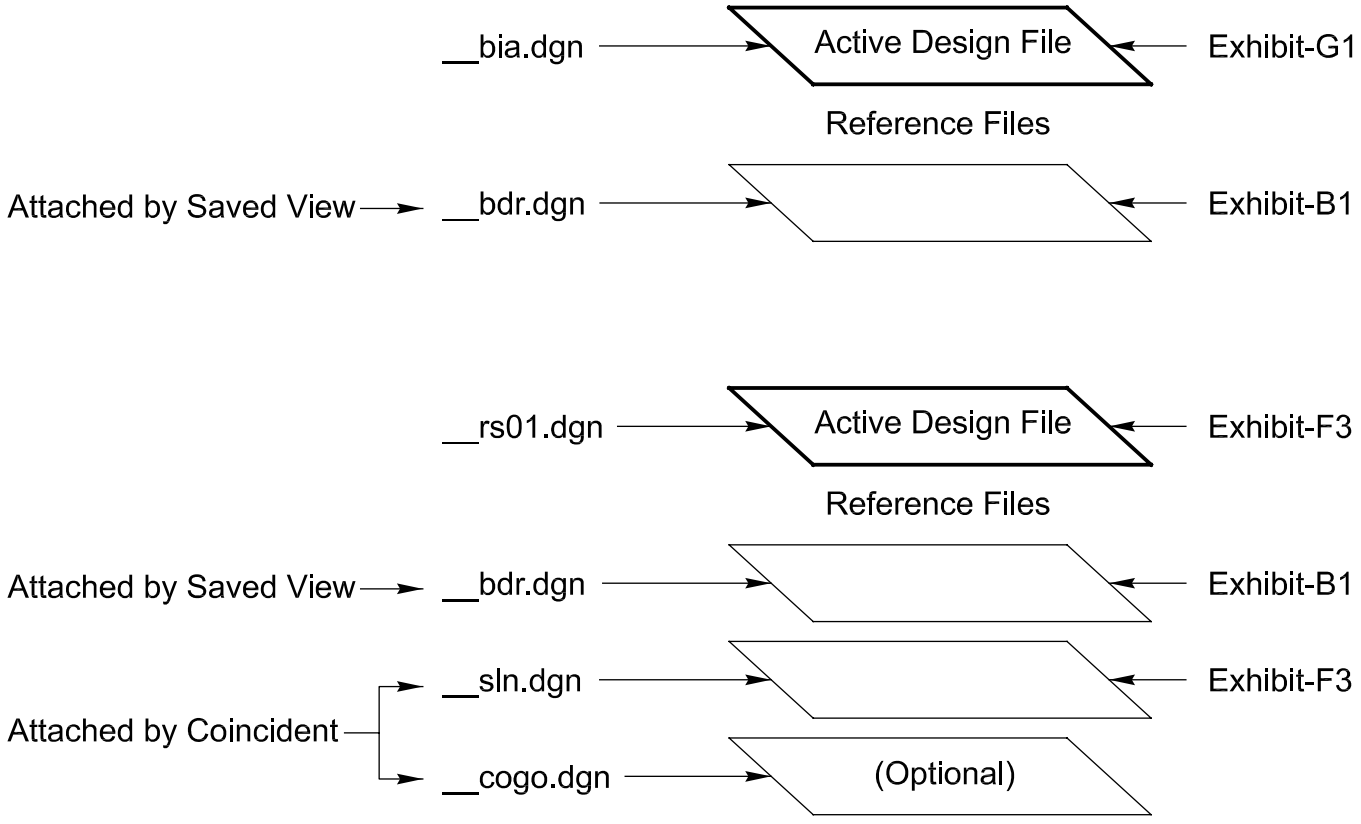
TYPICAL ADOT PROJECT & REFERENCING
for MicroStation

REFERENCING SCHEME



TYPICAL ADOT PROJECT & REFERENCING
for MicroStation

REFERENCING SCHEME



ADOT PROJECT SETUP PROCEDURES
for MicroStation

PROJECT SETUP

Create Project Folder - Use W.O. # or TRACS #
Copy seed_bdr.dgn & seed_cvr.dgn to Project Folder
Rename to ADOT naming scheme (i.e. 085rw138_bdr.dgn)
Create __cogo.dgn design file from Cogo Program

BASE FILES

Open __bdr.dgn design file
Complete Title Block
Create New Design File - __std.dgn
Reference __bdr.dgn then Add RWSTDS cell
Create New Design File - __ors01.dgn
Reference __bdr.dgn then Add CRWORS cell

PLAN FILES

Create New Design File - __pln.dgn
Reference __cogo.dgn then Fit View
Determine Project Limits from Scope
Insert Sheet Outline at scale of Plan sheets
Create New Design file __p01.dgn
Reference __pln.dgn & __cogo.dgn
Rotate View to Sheet Outline
Reference __bdr.dgn

CONSTRUCTION FILES

When available from the Design Consultant obtain the existing topo and new construction features. Edit the line styles per Exhibit-E3(C)
Attach to Plan sheets

ROS FILES

Create New Design File - __sln.dgn
Reference __cogo.dgn
Insert Sheet Outline at ROS scale
Create New Design File - __rs01.dgn
Reference __sln.dgn
Reference __bdr.dgn

VICINITY FILES

When the plan linework is substantially complete make a copy and rename it to __vln.dgn
Adjust linestyle to Vicinity Map scale
Insert Sheet Outline for Vicinity Sheets
Create New Design File - __vm01.dgn
Reference __vln.dgn
Rotate View - Reference __bdr.dgn

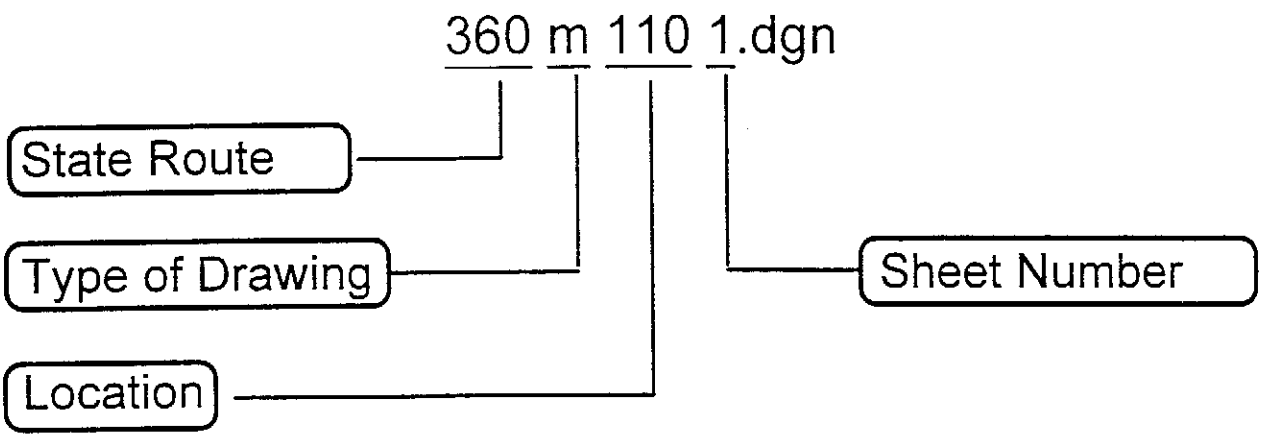
ALIGNMENT FILES

Create New Design File - __aln.dgn
Reference __cogo.dgn
Draw alignment and pattern
Attach to Plan sheets

NEW ACQUISITION FILES

Create New Design File - __acq.dgn
Reference __cogo.dgn
Draw New R/W, TCE etc.
Attach to Plan sheets & Vicinity Map

FILE NAMING CONVENTION FOR TRAFFIC STUDIES



TYPE OF DRAWING

a: Accident Diagram
b: Border
c: Condition Diagram
i: Improvement Diagram
m: Master Drawing
s: Speed Zone Diagram
t: Turning Radius Diagram

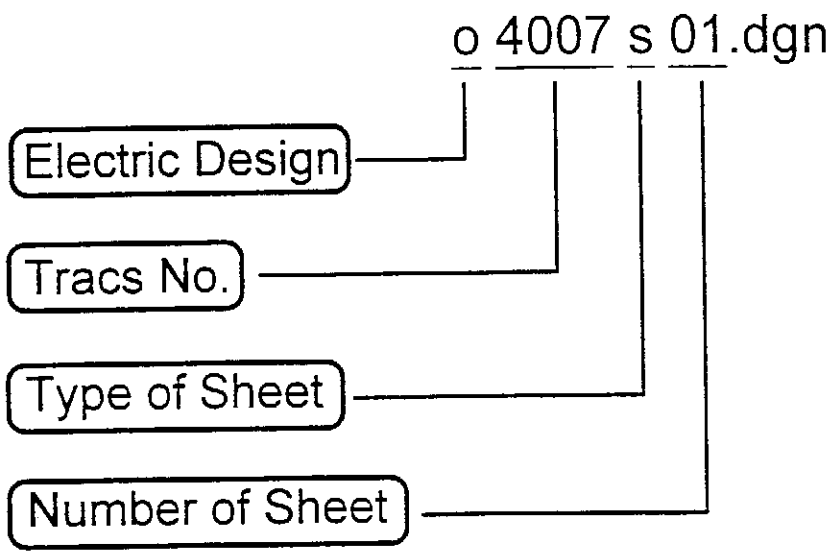
LOCATION

If using milepost, show only the milepost that begins the drawing on that page. If using a cross street then use only the first 3 letters or numbers.

SHEET NUMBER

1 through 9; if additional sheets are required, then use the alpha characters "a" through "z"

FILE NAMING CONVENTION FOR TRAFFIC ELECTRIC DESIGN



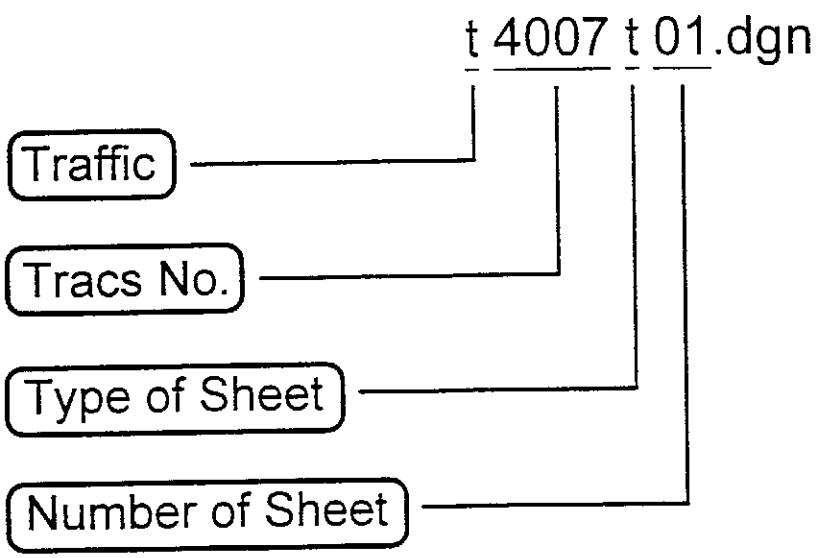
TYPE OF SHEET

s:	Signal Sheet
l:	Lighting Sheet
d:	Detail Sheet
ts:	Standards (USE ONLY FOR STANDARD DRAWINGS) EXAMPLE : Filename = eets33.dgn or mets33.dgn would be for Lighting and Signals Standard ETS 3.3 the first letter e stands for English and the m stands for Metric
ug:	Underground Conduit
ic:	Interconnect
fm:	Freeway Management
lr:	Loop Replacement
sl:	Sign Lighting

BASEMAP FILES

des:	Roadway Design Master (t4007des.dgn) - New Roadway Features
uti:	Utilities (t4007uti.dgn) - New & Existing Gas, Tel etc...
tpo:	Topography (t4007tpo.dgn) - Existing Features
bdr:	Border (t4007bdr.dgn) - Plan Sheet Traffic Design

FILE NAMING CONVENTION FOR TRAFFIC DESIGN



TYPE OF SHEET

t01 through t99:	Traffic Control Sheet
td1 through td9:	Traffic Control Detail Sheet
tn1 through tn9:	Traffic Control Note Sheet
p1 through p99:	Pavement Marking Sheet
pd1 through pd9:	Pavement Marking Detail Sheet
pn1 through pn9:	Pavement Marking Notes Sheet
d01 through d99:	Sign Detail Sheet
l01 through l99:	Sign Locations Sheet
s01 through d99:	Sign Summary Sheet
f01 through f99:	Sign Formats Sheet
r01 through r99:	Crossroad Sheet
2:	For Sheet 2 of Sign Rehab Projects

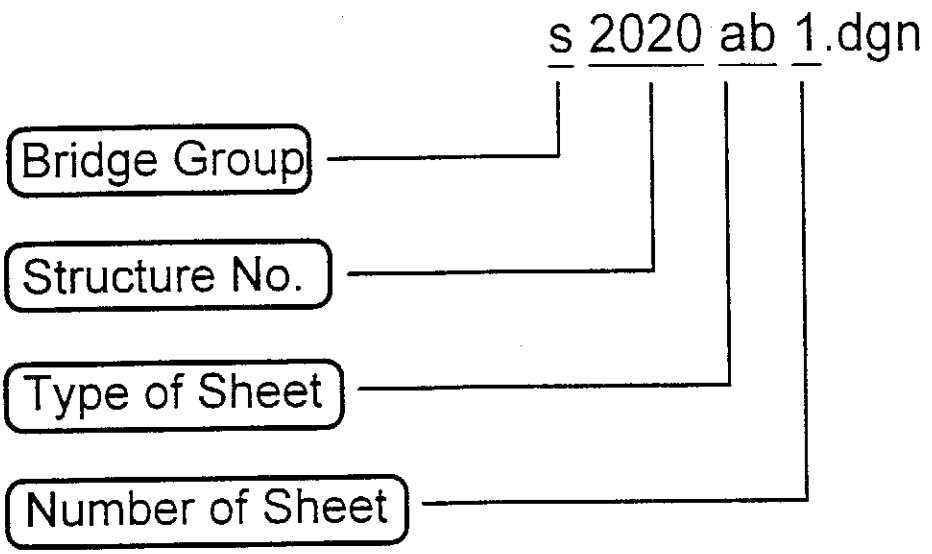
BASEMAP FILES

des:	Roadway Design Master (t4007des.dgn) - New Roadway Features
uti:	Utilities (t4007uti.dgn) - New & Existing Gas, Tel etc...
tpo:	Topography (t4007tpo.dgn) - Existing Features
bdr:	Border (t4007bdr.dgn) - Plan Sheet Traffic Design

TRAFFIC STANDARDS

ts: Standards (USE ONLY FOR STANDARD DRAWINGS)
EXAMPLE : Filename = ts4m202a through ts4m202z.dgn would be for Traffic Standard 4-M-2.02a through 4-M-2.02z

FILE NAMING CONVENTION FOR BRIDGE GROUP



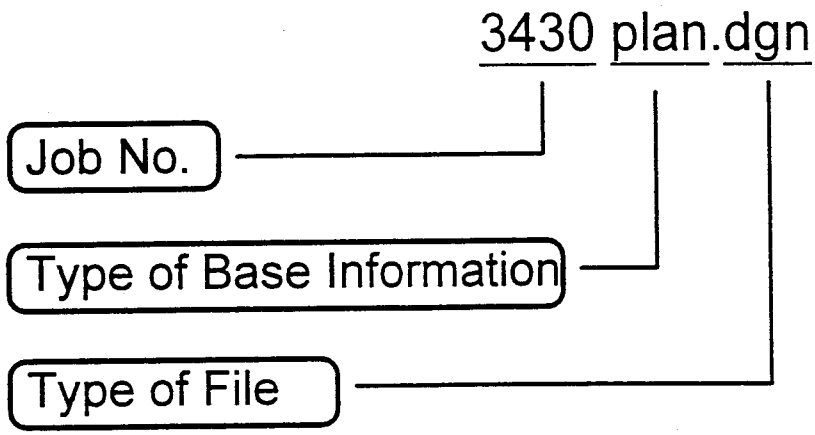
TYPE OF SHEET

ab: Abutment Plan And Elevation Sheet
ad: Abutment Detail Sheet
af: Abutment Diaphragm Detail Sheet
ap: Approach Slab Detail Sheet
bb: Barrier Bump Out Detail Sheet
ba: Barrier Replacement Sheet
bd: Bearing Detail Sheet
bo: Block out Detail Sheet
br: Bridge Removal Sheet
co: Change or Change Order Sheet
cu: Culvert Detail Sheet
dd: Deck Detail Sheet
dp: Deck Plan Sheet
df: Diaphragm Detail Sheet
ds: Drilled Shaft Detail Sheet
et: Elevation Table (Example - Build-up Table) Sheet
ej: Expansion Joint Sheet
fl: Footing Layout Sheet
fd: Foundation Data Drawing Sheet
gp: General Plan Sheet
nq: General Notes and Quantities Sheet
gd: Girder Detail Sheet
gl: Girder Layout Sheet
jr: Joint Repair Sheet
jb: Junction Box Detail Sheet
ld: Light Detail Sheet
lp: Location Plan Sheet
md: Miscellaneous Detail Sheet
pd: Pier Detail Sheet
pf: Pier Diaphragm Sheet
pr: Pier Plan and Elevation Sheet

BRIDGE GROUP TYPE OF SHEET (CONTINUED)

ps: Prestressing Detail Sheet
rd: Rail Detail Sheet
rw: Retaining Wall Detail Sheet
sd: Screed Detail Sheet
ss: Sign Support Sheet
sc: Soil Cement Sheet
sp: Scour Protection Sheet
xs: Typical Cross Section Sheet
ww: Wingwall Detail sheet

FILE NAMING CONVENTION FOR PHOTOGRAMMETRY ENGINEERING SUPPORT SERVICES

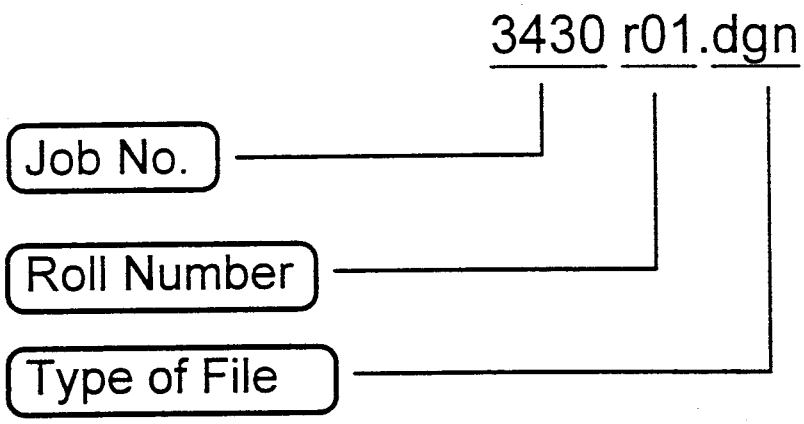


TYPE OF BASE INFORMATION

pipe: Existing Drainage and Pipe Notes
ali: MicroStation Graphics or InRoads Design Geometry for Highway Alignment File
plan: Planimetric Master files
sec: Section Corners, Control Features and Notes
rw: Right-of-Way Points

TYPE OF FILES

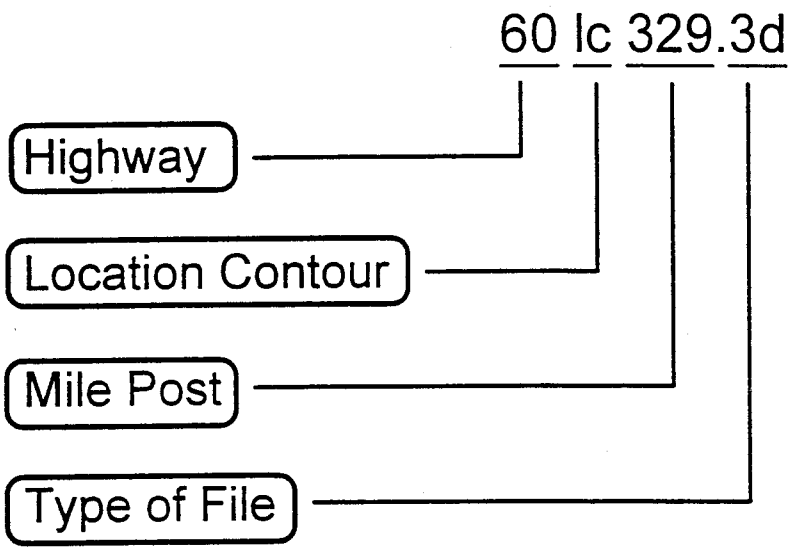
***.dgn:** MicroStation Graphics File (3430ali.dgn)
***.alg:** InRoads Geometry for Highway Alignment File (3430ali.alg)
***.dtm:** InRoads Digital Terrain Model [DTM] File (3430.dtm)
***.3d:** Three Dimensional MicroStation Graphics File (3430.3d)



TYPE OF FILES

***.dgn:** MicroStation Graphics File (3430r01.dgn)
***.dtm:** InRoads Digital Terrain Model [DTM] File (3430r01.dtm)
***.3d:** Three Dimensional MicroStation Graphics File (3430r01.3d)

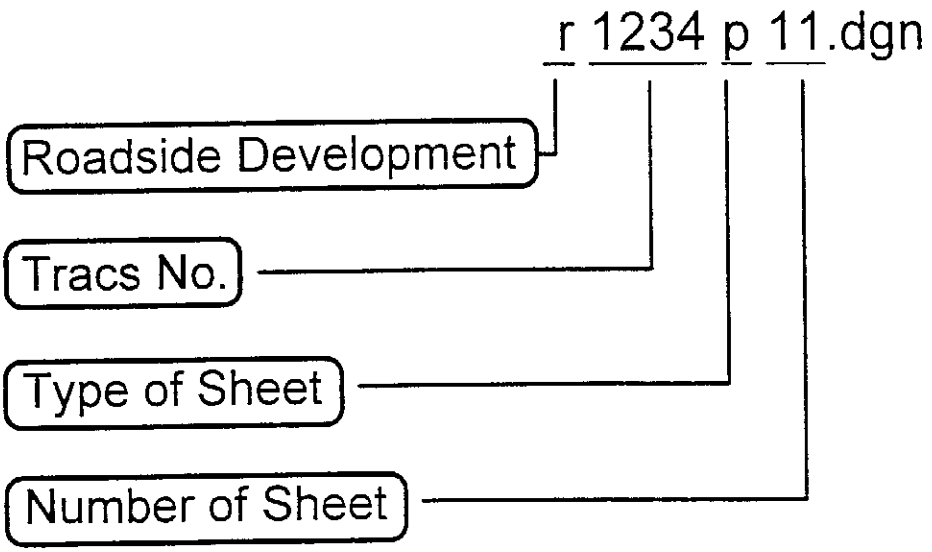
FILE NAMING CONVENTION FOR ENGINEERING SURVEY SECTION



TYPE OF FILES

*.asc: Field Survey Data [X-Y-Z Coordinates and Descriptors] in ASCII format (60.asc)
*.alg: InRoads Geometry for Highway Alignment File (60lc329.alg)
*.dtm: InRoads Digital Terrain Model [DTM] File (60lc329.dtm)
*.3d: Three Dimensional detail location maps with contours [1"=20', 1' contour intervals] (60lc329.3d)

FILE NAMING CONVENTION FOR ROADSIDE DEVELOPMENT



TYPE OF SHEET

p01 through p99:	Planting Plan Sheet
i01 through i99:	Irrigation Plan Sheet
sum:	Plant Summary Sheet
ld1 through ld9:	Landscape Detail Sheet
gd1 through gd9:	Landscape Architectural Graphic Detail Sheet
id1 through id9:	Irrigation Detail Sheet
g01 through g99:	Granite Mulch/Seeding Summary Sheet
ovr:	Project Overview Sheet
ra:	Rest Area Sheet
pi1 through pi9:	Plant Inventory Table Sheet
n01 through n09:	Native Plant Inventory Table Sheet
std:	Standard Sheet

BASEMAP FILES

pl1 through pl3:	Planting Design Master file (r1234pl1.dgn)
ir1 through ir3:	Irrigation Design Master file (r1234ir1.dgn)
grp:	Landscape Architectural Graphics Master File (r1234grp.dgn)
des:	Roadway Design Master (r1234des.dgn)
tpo:	Topography Master (r1234tpo.dgn)
bdr:	Project Sheet/Border (r1234bdr.dgn)
3d1 through 3d9:	Three Dimensional files